

Claims

- [c1] 1. A composite pickup box for an automotive vehicle, comprising:
a floor comprising a plurality of extruded beams, with each of said beams having a plurality of downward opening channels;
a plurality of wall sections, with each of said wall sections comprising a unitary extrusion having a plurality of outward opening channels, with each of said wall sections being permanently joined to said floor; and
an outer skin attached to said plurality of wall sections so as to cover said plurality of outward opening channels.
- [c2] 2. A composite pickup box for an automotive vehicle according to Claim 1, wherein said floor and said wall sections comprise extruded metal.
- [c3] 3. A composite pickup box for an automotive vehicle according to Claim 1, wherein said wall sections are welded to said floor.
- [c4] 4. A composite pickup box for an automotive vehicle according to Claim 1, wherein said wall sections are adhesively bonded to said floor.
- [c5] 5. A composite pickup box for an automotive vehicle according to Claim 2, wherein said floor and said wall sections comprise extruded aluminum, with said wall sections being welded to said floor.

- [c6] 6. A composite pickup box for an automotive vehicle according to Claim 1, wherein said floor and said wall sections comprise extruded plastic.
- [c7] 7. A composite pickup box for an automotive vehicle according to Claim 5, wherein said floor and said wall sections comprise extruded, fiber-filled resin.
- [c8] 8. A composite pickup box for an automotive vehicle according to Claim 1, further comprising a plurality of extruded corner posts extending vertically from said floor at a plurality of corners of said pickup box, with at least two of said wall sections being joined to said corner posts.
- [c9] 9. A composite pickup box for an automotive vehicle according to Claim 6, wherein each of said corner posts comprises an outwardly directed closed quadrant and an inwardly directed open quadrant, with said at least two wall sections being joined to outer surfaces of said inwardly directed quadrants.
- [c10] 10. A composite pickup box for an automotive vehicle according to Claim 8, wherein said at least two wall sections are welded to outer surfaces of said inwardly directed quadrants of said corner posts such that said welding is not visible from the interior of said pickup box.
- [c11] 11. A composite pickup box for an automotive vehicle utilizing an extruded, multi-piece structural assembly, with said pickup

box comprising:

a floor comprising a plurality of extruded beams, with each of said beams having a plurality of downward opening channels, and with said beams joined with each other;

a plurality of wall sections, with each of said wall sections comprising a unitary extrusion having a plurality of outward opening channels, with each of said wall sections being permanently joined to said floor;

a plurality of extruded corner posts extending vertically from said floor at a plurality of corners of said pickup box, with at least two of said wall sections being permanently joined to said corner posts; and

an outer skin attached to said plurality of wall sections so as to cover said plurality of outward opening channels, with said skin defining a plurality of wheel openings.

[c12] 12. A composite pickup box for an automotive vehicle according to Claim 11, wherein said extruded beams comprising said floor are joined by integral tongue and groove structures.

[c13] 13. A composite pickup box for an automotive vehicle according to Claim 11, wherein said extruded beams comprising said floor are joined by welding.

[c14] 14. A composite pickup box for an automotive vehicle according to Claim 11, wherein said outer skin comprises a

molded plastic cover which is attached to said wall sections and to said corner posts.

- [c15] 15. A composite pickup box for an automotive vehicle according to Claim 11, wherein said outer skin comprises a molded plastic cover formed from thermoformed sheets.
- [c16] 16. A composite pickup box for an automotive vehicle according to Claim 11, wherein each of said corner posts comprises an outwardly directed closed quadrant and an inwardly directed open quadrant, with said at least two wall sections being joined to outer surfaces of said inwardly directed quadrants.
- [c17] 17. A composite pickup box for an automotive vehicle according to Claim 16, wherein said at least two wall sections are welded to said outer surfaces of said inwardly directed quadrants such that said welding is not visible from the interior of said pickup box.
- [c18] 18. A method for constructing a pickup box for an automotive vehicle, comprising the steps of:
extruding at least one floor panel having a plurality of downward opening channels;
extruding a plurality of wall sections, with each section comprising a plurality of outward opening channels;
joining said wall sections to said at least one floor panel;

extruding a plurality of corner posts, with each post having an outwardly directed closed quadrant opposing an inwardly directed open quadrant;

joining the inwardly directed open quadrant portions of each of said corner posts to two of said wall sections and to said floor panel such that said corner posts extend vertically from said floor; and

applying a molded plastic skin including a plurality of wheelhouse openings to the exterior portions of said wall sections and said corner posts.

[c19] 19. A method for constructing a pickup box for an automotive vehicle according to Claim 18, wherein said wall sections are joined to said at least one floor panel, and said inwardly directed open quadrant portions of each of said corner posts are joined to said wall sections by welding.

[c20] 20. A method for constructing a pickup box for an automotive vehicle according to Claim 18, wherein said wall sections are joined to said at least one floor panel, and said inwardly directed open quadrant portions of each of said corner posts are joined to said wall sections by adhesive bonding.